

# ONLINE ENTRUSTING SYSTEM

## BACKGROUND OF THE INVENTION

### 5 1. FIELD OF THE INVENTION

The present invention relates to an online entrusting system, and more specifically, relates to an online entrusting system for processing the ~~requiring~~required information relating to ~~semiconductor~~integrated—circuit packages.

### 2. DESCRIPTION OF THE PRIOR ART

15 Modern network systems allows customers and companies to electronically communicate with each other to share and transfer information by computers. The electronic commerce, i.e. the E-commerce, becomes the trend for transaction. Conventional commerce allows a salesman to use a telephone or a facsimile machine to negotiate a business with a customer. The conventional commercial method is so slow and so expensive. The rapidly developed internet has enabled computers to provide an efficient, widely accessible, and secure mechanism for transacting the business by the E-commerce.

A feature of the E-commerce for transacting the business is the capability ~~offer~~ integrating the information ~~came~~ from different electrical systems to perfectly process the requisitions of users at real time. The transaction

performed by the high level processor reduces the cost of  
the manpower. by processing the manual works according to  
operate the high level processor. The economized cost can  
reduce the price for transacting the business and increase  
5 The intention of customers and users to transact the  
business by the E-commerce is increased owing to its low  
cost.

However, the security issues are the most important  
10 questions for transacting the business by the E-commerce.  
Users may worry the leakage of personal information such  
as the credit card number, account number being leaked.  
The business transacted by the business (B2B) type  
E-commerce may contain the confidential information of a  
15 company. If the trade secret is leaked or fetched by others,  
the company will lose technology or privilege information.  
At present, most of the information is encrypted before  
transmission. For example, SSL 128 bits is a typically  
technology to protect the information from being fetched or  
20 leaked.

Further, the limitation of the time and the space for  
transacting the business by the E-commerce is less and  
less. However, for example, a conventional entrust system  
25 for transacting the business has to analyze~~analysis~~ the  
orders or the requisitions from~~of~~ customers before  
performing any action about the orders or the requisitions  
by a computer or the manpower. Then, the customers have  
to wait for receiving the result about the orders or the  
30 requisitions several~~many~~ days later. The time and the  
process for processing the orders and the requisitions are~~is~~

so long and so complex. It is necessary to develop a novel automatic entrusting system to overcome the disadvantages in the prior art.

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## SUMMARY OF THE INVENTION

~~In terms of~~~~Base on~~ the previous discussion, the object of the present invention is to provide a system for automatically producing an analysis result according to a  
10 ~~requiring~~required information, i.e. a ~~packaging~~semiconductor package-information, on an order inputted by a user. The online entrusting system also responds the analysis result to the user.

15 The present invention provides an online entrusting system. The online entrusting system comprises a ~~processing controller~~manage and control unit to process an order inputted by a user, wherein the order comprises a ~~requiring~~required information. A database is coupled to the  
20 ~~processing controller~~manage and control unit to store the ~~requiring~~required information and a schedule information. A plurality of ~~analysis~~analyzing modules coupled to the ~~processing controller~~manage and control unit produces an analysis result about the ~~requiring~~required information  
25 inputted by the user. A ~~reply~~replying means responds the analysis result produced by the ~~analysis~~analyzing modules to the user. ~~Furthermore, Wherein~~ the user communicates with the online entrusting system via internet. The ~~requiring~~required information ~~may include~~is selected from  
30 at least one information of a substrate type, ~~at the~~ die

dimension, a package type, ~~at~~he thermal performance,  
~~an~~the amount ~~and the type~~ of substrate layers, the  
numbers of the input terminals and output terminals, and  
the ~~pitchs~~ between the input terminals and output  
5 terminals.

The present invention also discloses~~disclosed~~ a  
method for automatically providing online package  
entrusting comprises:

10 inputting an ~~requiring~~required information about a  
semiconductor package by a user;

storing the ~~requiring~~required information in a  
database;

producing a plurality of analysis results by a plurality  
15 of analysis modules according to the ~~requiring~~required  
information of the order;

recording the analysis results in the database; and

responding the analysis results to the user by a  
reply~~replying~~ means.

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## **BRIEF DESCRIPTION OF THE DRAWINGS**

FIG. 1~~Fig. 1~~ is a functional diagram of the system  
according to the present invention ; and

25 FIG. 2~~Fig. 2~~ is a flow chart diagram according to the  
present invention.

## **DESCRIPTION OF THE PREFERRED EMBODIMENT**

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The present invention discloses an online entrusting system to automatically provide an analysis result about a ~~requiring~~required information ~~of an order being attained or~~  
~~not to a user, wherein the requiring information of the~~  
5 ~~order is~~ inputted by the user. The online entrusting system automatically analyzes ~~everything about~~ the ~~requiring~~required information and responds the analysis result to the user by integrating each element of the online entrusting system and each analysis step ~~of analyzing~~.  
10 While the online entrusting system is coupled to ~~operates and connects with~~ a high~~efficiency~~effective server, the online entrusting system operates more effectively to ~~processtreat~~ and respond the ~~requiring~~required information to the user.

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As shown in FIG. 1~~Fig. 1~~, the client end 100 may fill the blank on ~~anthe~~ interface 101 of the present system by a user. The items on the interface include but not limited to the ~~requiring~~required information, i.e. a semiconductor  
20 package~~packaging~~ information, a personal information, a material and ~~anthe~~ analysis service including ~~a~~the thermal performance analysis, a circuits analysis, a stress analysis, a reliability analysis, a material analysis and a substrate analysis. The ~~requiring~~required information is selected from  
25 at least one information of~~includes~~ a substrate type, ~~a~~the die dimension, a package type, ~~a~~the thermal performance, ~~anthe~~ amount ~~and the type of~~ substrate layers, number~~the~~ amount of the input terminals and output terminals, ~~pitchesthe~~ pitch between the input terminals and output  
30 terminals.

## Marked-up Version Substitute Specification

The user or users may select one or more services via the communication interface, i.e. the interface 101. The information will be transmitted to the database, i.e. ~~anthe~~ entrusting database 103, of the entrusting system and the entrusting database 103 records the order from ~~athe~~ client end 100. The entrusting database 103 transmits the order to ~~anthe~~ entrusting system server 112 that includes a manage and control unit 104 and a ~~replyreplying~~ means 105. The manage and control unit 104 performs the ~~requestneed~~ according to the order and sends related information to ~~the~~ corresponding analysis modules. The analysis modules are selected from at least one of include ~~athe~~ thermal analysis module 106, a circuit analysis module 107, a stress analysis module 108, a reliability analysis module 109, a material analysis module 110 and a substrate analysis module 111. Each analysis module may include a sub-database for recording the analysis records. The analysis result is then forwarded to the manage and control unit 104. Subsequently, the manage and control unit 104 sends the information to the entrusting database 103 and the ~~replyreplying~~ means 105. The entrusting database 103 records the order and the analysis results to prepare for responding the results to the user at any time via different methods, such as i.e. the network, sending an e-mail, or a facsimile. The ~~replyreplying~~ means 105 may transform the analysis results to an electronic mail format and forward to the user, or the client, via the network. The ~~replyreplying~~ means will send the report about the ~~requiringrequired~~ information and a schedule information to the client end 100 by an e-mail, a facsimile, a short message or the likes ~~something like that~~. The e-mail system

is ~~anused~~ for example, not used to limit the scope of the present invention. The schedule information includes the progress information about processing the order and the result for processing the order.

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FIG. 2~~Fig. 2~~ is a flow chart in accordance with the present invention. The user may login the system and then input the data, i.e. a ~~requiring~~required information, via ~~a~~the network 102, as shown in step 201. As shown in step 10 202, the entrusting database 103 records the ~~requiring~~required information ~~therein~~ and sends the ~~requiring~~required information to the manage and control unit 104. Then the manage and control unit 104 determines ~~what type the user selected and what service the user~~ 15 ~~requested~~, as shown in step 203. The manage and control unit 104 controls a plurality of analysis modules to ~~analyze~~analysis ~~everything according to the~~ ~~requiring~~required information provided by the user. If the ~~requiring~~required information is insufficient~~not certainly or~~ 20 ~~enough~~ to determine what kind of analysis the user wants, the ~~reply~~replying means 105 will ask the user to provide more ~~requiring~~required information again, as shown in step 201. ~~The s~~Steps 214, 224, 234, 244, 254 and 264 are to perform the thermal performance analysis, the circuit 25 analysis, the stress analysis, the reliability analysis, the material analysis and the substrate analysis respectively.

The ~~analysis~~analyzing result will be responded to the manage and control unit 104, and then the manage and 30 control unit 104 collects the results as shown in step 205. The manage and control unit 104 stores the

Marked-up Version Substitute Specification

~~requiring~~required information and the analysis results in the entrusting database 103 capable of being inquired~~for inquiring~~ by the user, i.e. the client, as shown in step 206. Subsequently, the stored information will be responded to the reply~~replying~~ means 105 to notify the user. The results are responded to the client end 100 in step 207 by the system via an~~the~~ e-mail, a~~the~~ facsimile or the like.

As is understood by a person skilled in the art, the foregoing preferred embodiments of the present invention are illustrated of the present invention rather than limiting of the present invention. It is intended to cover various modifications and similar arrangements included within the spirit and scope of the appended claims, the scope of which should be accorded the broadest interpretation so as to encompass all such modifications and similar structure. Thus, while the preferred embodiment of the invention has been illustrated and described, it will be appreciated that various changes can be made therein without departing from the spirit and scope of the invention.